CLAIMS

WE CLAIM:

1. A polymer blend comprising:

a first component of a polymeric material capable of being cross-linked and selected from the group consisting of an ethylene containing polymer, the first component present in an amount by weight of the blend from about 50% to about 95%, the first component having a first melting point temperature determined by DSC;

a second component not readily cross-linkable and selected from the group consisting of propylene-containing polymers and methyl-pentene-containing polymers, the second component being present in an amount by weight of the blend from about 50% to about 5%, the second component having a second melting point temperature determined by DSC; and

a portion of the first component being cross-linked and the second component is essentially free of cross-linking.

2. The blend of claim 1, wherein the second melting point temperature is higher than the first melting point temperature.

3. The blend of claim 2 when formed into a film the film is capable of forming a peel seal to itself when heated to below the second melting point temperature.

4. The blend of claim 2 is capable of forming a peel seal to itself when heated to above the first melting point temperature but below the second melting point temperature.

5. The blend of claim 3 when formed into a film the film is capable of forming a permanent seal to itself when heated to above the second melting point temperature.

6. The blend of claim 1 is capable of being sterilized by steam at a temperature from about 100°C to about 130°C.

7. The blend of claim 2, wherein a peel seal heat sealing window is defined between a range of temperatures existing between the first melting point temperature and the second melting point temperature.

8. The blend of claim 7, wherein the peel seal heat sealing window includes at least one temperature point within a range of temperatures suitable for steam sterilization.

9. The blend of claim 7, wherein the peel seal window includes at least one temperature point within the range of from about 75°C to about 135°C.

10. The blend of claim 1, wherein the ethylene-containing polymer is selected from

the group consisting of: ethylene homopolymers, and ethylene copolymers.

11. The blend of claim 10, wherein the ethylene copolymer is obtained by reacting ethylene with a comonomer selected from the group consisting of: α-olefins, vinyl esters, vinyl carboxylic acids, alkyl substituted vinyl esters, alkyl substituted vinyl carboxylic acids, acrylic acids, ester derivatives of acrylic acids, alkyl substituted acrylic acids, ester derivatives of alkyl substituted acrylic acids and ion stabilized alkyl substituted acrylic acids.

12. The blend of claim 11, wherein the ethylene and α-olefin copolymer has a density of less than about 0.915 g/cc

13. The blend of claim 12, wherein the ethylene copolymer is obtained using a single-site catalyst.

14. The blend of claim 1, wherein the propylene containing polymer is selected from the group consisting of propylene homopolymers and propylene copolymers.

15. The blend of claim 14, wherein the propylene containing polymer has a modulus of elasticity of less than about 200,000 psi.

16. The blend of claim 1, wherein the methylpentene-containing polymer is selected from the group consisting of: homopolymers of 4-methylpentene-1, and copolymers of 4-methylpentene-1.

17. The blend of claim 1, wherein the first component is present in an amount by weight of from about 55% to about 90%.

18. The blend of claim 1, wherein the first component is present in an amount by weight of from about 60% to about 80%.

19. The blend of claim 1, wherein the first component is present in an amount by weight of from about 65% to about 75%.

20. The blend of claim 1, wherein the first component is a blend of ethylene containing polymers.

21. The blend of claim 1, wherein the second component is a blend selected from the group consisting of at least one propylene-containing polymer, at least one methyl-pentene-containing polymer, and at least one propylene-containing polymer and at least one methyl-pentene-containing polymer.

22. A monolayer film comprising:

a polymer blend of a first component of a polymeric material capable of being

cross-linked and selected from the group consisting of an ethylene containing polymer, the first component present in an amount by weight of the film from about 50% to about 95%, the first component having a first melting point temperature determined by DSC, a second component not readily cross-linkable and selected from the group consisting of propylene containing polymers and methyl pentene containing polymers, the second component being present in an amount by weight of the film from about 50% to about 5%, the second component having a second melting point temperature determined by DSC; and a portion of the first component being cross-linked and the second component is essentially free of cross-linking.

23. The film of claim 22, wherein the second melting point temperature is higher than the first melting point temperature.

24. The film of claim 22 is capable of forming a peel seal to itself when heated to above the first melting point temperature but below the second melting point temperature.

25. The film of claim 24 is capable of forming a permanent seal to itself when heated above the second melting point temperature.

26. The film of claim 22 is capable of being sterilized by steam at a temperature from about 100°C to about 130°C.

27. The film of claim 23, wherein a peel seal heat sealing window is defined between a range of temperatures existing between the first melting point temperature and the second melting point temperature.

28. The film of claim 27, wherein the peel seal heat sealing window includes at least one temperature point within a range of temperatures suitable for steam sterilization.

29. The film of claim 27, wherein the peel seal heat sealing window includes at least one temperature point within the range of from about 75°C to about 135°C.

30. The film of claim 22 is capable of forming a peel seal with itself that is capable of adhesive release.

31. The film of claim 22, wherein the ethylene containing polymer is selected from the group consisting of: ethylene homopolymers, and ethylene copolymers.

32. The film of claim 31, wherein the ethylene copolymer is obtained by reacting ethylene with a comonomer selected from the group consisting of: α-olefins, vinyl esters, vinyl carboxylic acids, alkyl substituted vinyl esters, alkyl substituted vinyl carboxylic acids, acrylic acids, ester derivatives of acrylic acids, alkyl substituted acrylic acids, ester derivatives of alkyl

substituted acrylic acids and ion stabilized alkyl substituted acrylic acids.

33. The film of claim 32, wherein the ethylene and α-olefin copolymer has a density of less than about 0.915 g/cc.

34. The film of claim 33, wherein the ethylene copolymer is obtained using a single-site catalyst.

35. The film of claim 22, wherein the propylene-containing polymer is selected from the group consisting of propylene homopolymers and propylene copolymers.

36. The film of claim 22, wherein the methylpentene-containing polymer is selected from the group consisting of: homopolymers of 4-methylpentene-1, and copolymers of 4-methylpentene-1.

37. The film of claim 35, wherein the propylene containing polymer has a modulus of elasticity of less than about 200,000 psi.

38. The film of claim 22, wherein the first component is a blend of ethylene containing polymers.

39. The film of claim 22, wherein the second component is a blend selected from the group consisting of at least one propylene-containing polymer, at least one methyl-pentene-containing polymer, and at least one propylene-containing polymer and at least one methyl-pentene-containing polymer.

40. A multiple layered film comprising:

a first layer of a first polymer blend of a first component of a polymeric material capable of being cross-linked and selected from the group consisting of an ethylene containing polymer, the first component present in an amount by weight of the blend from about 50% to about 95%, the first component having a first melting point temperature determined by DSC, a second component not readily cross-linkable and selected from the group consisting of propylene containing polymers and methyl-pentene containing polymers, the second component being present in an amount by weight of the blend from about 50% to about 5%, the second component having a second melting point temperature determined by DSC; and a portion of the first component being cross-linked and the second component is essentially free of cross-linking; and

a second layer attached to the first layer and being of a polymer, paper, or metal foil.

41. The film of claim 40, wherein the second melting point temperature is higher than

the first melting point temperature.

42. The film of claim 40 is capable of forming a peel seal to itself when heated to above the first melting point temperature but below the second melting point temperature.

43. The film of claim 42 is capable of forming a permanent seal to itself when heated to above the second melting point temperature.

44. The film of claim 40 is capable of being sterilized by steam at a temperature from about 100°C to about 130°C.

45 The film of claim 40, wherein a peel seal window is defined between a range of temperatures existing between the first melting point temperature and the second melting point temperature.

46. The film of claim 45, wherein the peel seal window includes at least one temperature point within a range of temperatures suitable for steam sterilization.

47. The film of claim 45, wherein the peel seal heat sealing window includes at least one temperature point within the range of from about 75°C to about 135°C.

48. The film of claim 40 is capable of forming a peel seal with itself that is capable of adhesive release.

49. The film of claim 40, wherein the ethylene containing polymer is selected from the group consisting of: ethylene homopolymers, and ethylene copolymers.

50. The film of claim 49, wherein the ethylene copolymer is obtained by reacting ethylene with a comonomer selected from the group consisting of: α-olefins, vinyl esters, vinyl carboxylic acids, alkyl substituted vinyl esters, alkyl substituted vinyl carboxylic acids, acrylic acids, ester derivatives of acrylic acids, alkyl substituted acrylic acids, ester derivatives of alkyl substituted acrylic acids and ion stabilized alkyl substituted acrylic acids.

51. The film of claim 40, wherein the ethylene and α-olefin copolymer has a density of less than about 0.915 g/cc.

52. The film of claim 40, wherein the ethylene copolymer is obtained using a single-site catalyst.

53. The film of claim 40, wherein the propylene-containing polymer is selected from the group consisting of propylene homopolymers and propylene copolymers.

54. The film of claim 53, wherein the propylene containing polymer has a modulus of elasticity of less than about 200,000 psi.

55. The film of claim 40, wherein the methylpentene-containing polymer is selected from the group consisting of: homopolymers of 4-methylpentene-1, and copolymers of 4-methylpentene-1.

56. The film of claim 40, wherein the first component is a blend of ethylene containing polymers.

57. The film of claim 40, wherein the second component is a blend selected from the group consisting of at least one propylene containing polymer, at least one methyl-pentene-containing polymer, and at least one propylene containing polymer with at least one methyl-pentene-containing polymer.

58. The film of claim 40, further comprising a third layer attached to the second layer opposite the first layer.

59. The film of claim 58, wherein the third layer is of a second polymer blend.

60. The film of claim 59, wherein the second polymer blend comprises a third component of a polymeric material capable of being cross-linked and selected from the group consisting of an ethylene containing polymer, the third component present in an amount by weight of the blend from about 50% to about 95%, the third component having a third melting point temperature determined by DSC, a fourth component not readily cross-linkable and selected from the group consisting of propylene containing polymers and methyl pentene containing polymers, the fourth component being present in an amount by weight of the blend from about 50% to about 5%, the fourth component having a fourth melting point temperature determined by DSC; and a portion of the third component being cross-linked and the fourth component is essentially free of cross-linking.

61. A tubing comprising:

a sidewall of a polymer blend of a first component of a polymeric material capable of being cross-linked and selected from the group consisting of an ethylene containing polymer, the first component present in an amount by weight of the blend from about 50% to about 95%, the first component having a first melting point temperature determined by DSC, a second component not readily cross-linkable and selected from the group consisting of propylene containing polymers and methyl-pentene containing polymers, the second component being present in an amount by weight of the blend from about 50% to about 5%, the second component having a second melting point temperature determined by DSC; and a portion of the first

component being cross-linked and the second component is essentially free of cross-linking.

62. The tubing of claim 61, wherein the second melting point temperature is higher than the first melting point temperature.

63. The tubing of claim 61 is capable of forming a peel seal to itself when heated to a temperature below the second melting point temperature.

64. The tubing of claim 63 is capable of forming a permanent seal to itself when heated to above the second melting point temperature.

65. The tubing of claim 61, wherein a peel seal heat sealing window is defined between the first melting point temperature and the second melting point temperature.

66. The tubing of claim 65, wherein the peel seal heat sealing window includes at least one temperature within the range of from about 75°C to about 135°C.

67. The tubing of claim 65, wherein the peel seal heat sealing window includes at least one temperature point within a range of temperatures suitable for steam sterilization.

68. The tubing of claim 67, wherein the peel seal window includes at least one temperature point within the range of from about 100°C to about 130°C.

69. The tubing of claim 61 is capable of forming a peel seal with itself that is capable of adhesive release.

70. The tubing of claim 61, wherein the ethylene containing polymer is selected from the group consisting of: ethylene homopolymers, and ethylene copolymers.

71. The tubing of claim 70, wherein the ethylene copolymer is obtained by reacting ethylene with a comonomer selected from the group consisting of: α-olefins, vinyl esters, vinyl carboxylic acids, alkyl substituted vinyl esters, alkyl substituted vinyl carboxylic acids, acrylic acids, ester derivatives of acrylic acids, alkyl substituted acrylic acids, ester derivatives of alkyl substituted acrylic acids and ion stabilized alkyl substituted acrylic acids.

72. The tubing of claim 71, wherein the ethylene and α-olefin copolymer has a density of less than about 0.915 g/cc.

73. The tubing of claim 70, wherein the ethylene copolymer is obtained using a single-site catalyst.

74. The tubing of claim 61, wherein the propylene containing polymer is selected from the group consisting of propylene homopolymers and propylene copolymers.

75. The tubing of claim 74, wherein the propylene containing polymer has a modulus

of elasticity of less than about 200,000 psi.

76. The tubing of claim 61, wherein the methylpentene-containing polymer is selected from the group consisting of: homopolymers of 4-methylpentene-1, and copolymers of 4-methylpentene-1.

77. The tubing of claim 61, wherein the first component is a blend of ethylene containing polymers.

78. The tubing of claim 61, wherein the second component is a blend selected from the group containing of at least one propylene containing polymer, at least one methyl-pentene containing polymer, and at least one propylene container polymer with at least one methylpentene-containing polymer.

79. A flowable materials container comprising:

a first sidewall of a first polymer blend of a first component of a polymeric material capable of being cross-linked and selected from the group consisting of an ethylene-containing polymer, the first component present in an amount by weight of the first blend from about 50% to about 95%, the first component having a first melting point temperature determined by DSC, a second component not readily cross-linkable and selected from the group consisting of propylene containing polymers and methyl-pentene containing polymers, the second component being present in an amount by weight of the first blend from about 50% to about 5%, the second component having a second melting point temperature determined by DSC; and a portion of the first component being cross-linked and the second component is essentially free of cross-linking; and

a second sidewall attached to the first sidewall along a peripheral seam to define a chamber between the first sidewall and the second sidewall, the second sidewall being of a polymer, a paper or a metal foil.

80. The container of claim 79, wherein the second sidewall is of a second polymer blend.

81. The container of claim 80, wherein the second polymer blend is the same as the first polymer blend.

82. The container of claim 79, further comprising a peel seal between the first sidewall and the second sidewall.

83. The container of claim 82, wherein the peel seal separates the chamber into a first

sub-chamber and a second sub-chamber.

84. The container of claim 82, wherein the peel seal is capable of adhesive release.

85. The container of claim 82, wherein the peel seal extends between lateral edges of the container.

86. The container of claim 82, wherein the peel seal extends between longitudinal edges of the container.

87. The container of claim 82, wherein the peripheral seam is a permanent seal.

88. The container of claim 82, wherein the peel seal is formed by heating the first sidewall to above the first melting point temperature but below the second melting point temperature.

89. The container film of claim 88, wherein the permanent seal is formed by heating the first sidewall to above the second melting point temperature.

90. The container of claim 79 is capable of being sterilized by steam at a temperature from about 100°C to about 130°C.

91. The container of claim 79, wherein the second melting point temperature is higher than the first melting point temperature, and wherein a peel seal heat sealing window is defined between a range of temperatures existing between the first melting point temperature and the second melting point temperature.

92. The container of claim 91, wherein the peel seal heat sealing window includes at least one temperature point within a range of temperatures suitable for steam sterilization.

93. The container of claim 91, wherein the peel seal heat sealing window includes at least one temperature point within the range of from about 75°C to about 135°C.

94. The container of claim 79, wherein the ethylene-containing polymer is selected from the group consisting of: ethylene homopolymers, and ethylene copolymers.

95. The container of claim 94, wherein the ethylene copolymer is obtained by reacting ethylene with a comonomer selected from the group consisting of: α-olefins, vinyl esters, vinyl carboxylic acids, alkyl substituted vinyl esters, alkyl substituted vinyl carboxylic acids, acrylic acids, ester derivatives of acrylic acids, alkyl substituted acrylic acids, ester derivatives of alkyl substituted acrylic acids and ion stabilized alkyl substituted acrylic acids.

96. The container of claim 95, wherein the ethylene and α-olefin copolymer has a density of less than about 0.915 g/cc.

97. The container of claim 96, wherein the ethylene copolymer is obtained using a single-site catalyst.

98. The container of claim 79, wherein the propylene-containing polymer is selected from the group consisting of propylene homopolymers and propylene copolymers.

99. The container of claim 98, wherein the propylene-containing polymer has a modulus of elasticity of less than about 200,000 psi.

100. The container of claim 98, wherein the methylpentene-containing polymer is selected from the group consisting of: homopolymers of 4-methylpentene-1, and copolymers of 4-methylpentene-1.

101. The container of claim 79, wherein the first component is a blend of ethylene containing polymers.

102. The container of claim 79, wherein the second component is a blend selected from the group consisting of at least one propylene-containing polymer, at least one methyl-pentene containing polymer, and at least one propylene-containing polymer with at least one methylpentene-containing polymer.

103. A multichamber flowable materials container comprising:

a first sidewall of a first polymer blend of a first component of a polymeric material capable of being cross-linked and selected from the group consisting of an ethylene-containing polymer, the first component present in an amount by weight of the first blend from about 50% to about 95%, the first component having a first melting point temperature determined by DSC, a second component not readily cross-linkable and selected from the group consisting of propylene containing polymers and methyl pentene containing polymers, the second component being present in an amount by weight of the first blend from about 50% to about 5%, the second component having a second melting point temperature determined by DSC; and a portion of the first component being cross-linked and the second component is essentially free of cross-linking;

a second sidewall attached to the first sidewall along a peripheral seam to define a chamber between the first sidewall and the second sidewall, the second sidewall being of a polymer, a paper or a metal foil; and

a peelable seal between the first sidewall and the second sidewall and dividing the chamber into two subchambers.

104. The container of claim 103, wherein the peelable seal is capable of an adhesive release.

105. The container of claim 103, wherein the peelable seal is capable of being separated with a force of greater than about 3 N/15 mm.

106. The container of claim 103, wherein the container is capable of being steam sterilized.

107. The container of claim 106, wherein the peel seal has substantially the same strength when comparing the strength of the peel seal before the container is steam sterilized with the strength of the peel seal after the container is steam sterilized.

108. The container of claim 107, wherein the strength of the peel seal before steam sterilization and after steam sterilization varies by less than 30%.

109. The container of claim 107, wherein the strength of the peel seal before steam sterilization and after steam sterilization varies by less than 20%.

110. The container of claim 107, wherein the strength of the peel seal before steam sterilization and after steam sterilization varies by less than 10%.

111. A method for forming a film comprising the steps of:

providing a polymer blend of a first component of a polymeric material capable of being cross-linked and selected from the group consisting of an ethylene-containing polymer, the first component present in an amount by weight of the blend from about 50% to about 95%, the first component having a first melting point temperature determined by DSC, a second component not readily cross-linkable and selected from the group consisting of propylene containing polymers and methyl pentene containing polymers, the second component being present in an amount by weight of the blend from about 50% to about 5%, the second component having a second melting point temperature determined by DSC;

forming the polymer blend into a film; and

cross-linking the first component while the second component is essentially free of cross-linking.

112. The method of claim 111, wherein the step of forming comprises a polymer processing technique selected from the group consisting of extrusion, blown extrusion, thermoforming, calendaring, compression molding and blow molding.

113. The method of claim 111, wherein the film is a monolayer film.

114. The method of claim 111, wherein the film is a multiple-layer film.

115. A method for forming a multiple-chamber container comprising the steps of:

providing a first film of a polymer blend of a first component of a polymeric material capable of being cross-linked and selected from the group consisting of an ethylene-containing polymer, the first component present in an amount by weight of the blend from about 50% to about 95%, the first component having a first melting point temperature determined by DSC, a second component not readily cross-linkable and selected from the group consisting of propylene containing polymers and methyl pentene containing polymers, the second component being present in an amount by weight of the blend from about 50% to about 5%, the second component having a second melting point temperature determined by DSC, the second melting point temperature being higher than the first melting point temperature;

providing a second film of a polymeric material, paper or metal foil;

cross-linking the first component while the second component is essentially free of cross-linking;

positioning the first film into registration with the second film;

sealing a first portion of the first film to the second film to form a permanent seal; and

sealing a second portion of the first film to the second film to form a peel seal.

116. The method of claim 115, wherein the step of sealing the first portion comprises the steps of sealing about a peripheral portion of the first film and the second film to define a chamber.

117. The method of claim 116, wherein the step of sealing about a peripheral portion of the first film comprises the step of heating the first film to a temperature higher than the second melting point temperature.

118. The method of claim 115, wherein the peel seal divides the chamber into two subchambers.

119. The method of claim 115, wherein the step of sealing a second portion of the first film to the second film to define a peel seal comprises the step of heating the first film to a temperature higher than the first melting point temperature but less than the second melting point temperature.

120. The method of claim 115, wherein a peel seal heat sealing window is defined

between the first melting point temperature and the second melting point temperature, wherein the step of sealing a second portion of the first film to the second film to define a peel seal comprises the step of heating the first film to a temperature within the peel seal window.

121. The method of claim 120, wherein the peel seal heat sealing window includes temperatures from about 75°C to about 135°C.

122. The method of claim 115, wherein the step of cross-linking comprises the step of exposing the first film to a chemical cross-linking agent or to a radiation cross-linking source or to both a chemical cross-linking agent and a radiation cross-linking source.

123. The method of claim 122, wherein the chemical cross-linking agent is selected from the group consisting of: peroxides, silanes, sulfur, and multifunctional acrylates.

124. The method of claim 122, wherein the radiation cross-linking source is selected from the group consisting of: ultra-violet light, electron beam, and gamma rays.

125. The method of claim 115, wherein the step of forming a permanent seal is carried out before the step of forming the peel seal.

126. The method of claim 115, wherein the step of forming a permanent seal is carried out after the step of forming the peel seal.

127. The method of claim 115, wherein the cross-linking step is carried out before the step of sealing a first portion of film.

128. The method of claim 115, wherein the step of forming a permanent seal is carried out simultaneously with the step of forming the peel seal.

129. A multichamber flowable materials container comprising:

a first sidewall of a first polymer blend of a first component of a polymeric material capable of being cross-linked and selected from the group consisting of an ethylene-containing polymer, the first component present in an amount by weight of the first blend from about 50% to about 95%, the first component having a first melting point temperature determined by DSC, a second component not readily cross-linkable and selected from the group consisting of propylene containing polymers and methyl-pentene-containing polymers, the second component being present in an amount by weight of the first blend from about 50% to about 5%, the second component having a second melting point temperature determined by DSC; and a portion of the first component being cross-linked and the second component is essentially free of cross-linking;

a second sidewall attached to the first sidewall along a peripheral seam to define a chamber between the first sidewall and the second sidewall, the second sidewall being of a polymer, a paper or a metal foil;

a peelable seal between the first sidewall and the second sidewall and dividing the chamber into two subchambers; and

wherein the peelable seal can be opened by applying a force to the container and wherein the force remains essentially constant when comparing the peelable seal of the container before the container has been autoclaved and after the container has been autoclaved.

130. The container of claim 129, wherein the force required to open the peelable seal prior to the autoclave process and after the autoclave process varies by less than 30%.

131. The container of claim 129, wherein the force required to open the peelable seal prior to the autoclave process and after the autoclave process varies by less than 20%.

132. The container of claim 129, wherein the force required to open the peelable seal prior to the autoclave process and after the autoclave process varies by less than 10%.

133. The container of claim 132, wherein the peelable seal is capable of being separated with a force of greater than about 3 N/15 mm.

134. The container of claim 129 wherein a range of temperatures extends between the first melting point temperature and the second melting point temperature to define a peel seal heat sealing window.

135. The container of claim 134 wherein the peelable seal strength remains essentially constant when sealed within the peel seal heat sealing window.

136. A layered structure comprising:

a first layer and a second layer of a material not capable of forming a peel seal; and

a third layer of a material capable of forming a peel seal interposed between the first layer and the second layer to form a peel seal between the first layer and the second layer.

137. A method for forming a textured film comprising the steps of:

providing a polymer blend of a first component of a polymeric material capable of being cross-linked and selected from the group consisting of an ethylene-containing polymer, the first component present in an amount by weight of the blend from about 50% to about 95%, the

first component having a first melting point temperature determined by DSC, a second component not readily cross-linkable and selected from the group consisting of propylene containing polymers and methyl pentene containing polymers, the second component being present in an amount by weight of the blend from about 50% to about 5%, the second component having a second melting point temperature determined by DSC;

forming the polymer blend into a film;

imparting a textured surface on the film; and

cross-linking the first component while the second component is essentially free of cross-linking.

138.The method of claim 137 wherein the step of imparting a textured surface on the film comprises the step of extruding the film.

139. The method of claim 137 wherein the step of extruding the film includes the step of running the film in contact with a textured roller.

140. The method of claim 137 wherein a peel seal heat sealing window is defined between the first melting point temperature and the second melting point temperature, the method further comprising the steps of:

placing a portion of the film in registration with another portion of the film to define an overlap area;

heating the overlap area to a temperature within the peel seal heat sealing window to define a peel seal.

141. The method of claim 140 wherein the peel seal has a strength that remains essentially constant when sealed within the peel seal heat sealing window.

142. The method of claim 140 wherein the peel seal has a strength that remains essentially constant when comparing the film before being autoclaved and after being autoclaved.

143. The method of claim 140 wherein the surface texture can be measured by haze

values and wherein as the haze values increase the peel seal strength decreases.

144. The method of claim 140 wherein the surface texture can be measured by surface roughness values and wherein as the surface roughness values increase the peel seal strength decreases.